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*  G P I  *
*  JAPANESE PATENT ABSTRACTS  *
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L1    210 TRANSGLUTAMINASE
L2   1764 HIROSHI?/IN
L3      0 L1 AND L2
L4  22525 TAKAGI?/IN
L5      4 L1 AND L4

JP406030771A                    L5: 1 of 4
TITLE:  PRODUCTION OF BACTERIAL **TRANSGLUTAMINASE** AND RELATED MATERIAL

JP405199883A                    L5: 2 of 4
TITLE:  RECOMBINANT **TRANSGLUTAMINASE**

JP402100647A                    L5: 3 of 4
TITLE:  PRODUCTION OF FRIED BEAN CURD

JP402069146A                    L5: 4 of 4
TITLE:  PRODUCTION OF PROTEIN-TEXTURED PRODUCT

JP406030771A        Feb. 8, 1994        L5: 1 of 4
  PRODUCTION OF BACTERIAL **TRANSGLUTAMINASE** AND RELATED MATERIAL
INVENTOR:  KAWAI, MISAKO        TAKEHANA, SHINO        **TAKAGI, HIROSHI**
APPLICANT:  AJINOMOTO CO INC
APPL NO:  JP 04187038
DATE FILED:  Jul. 14, 1992 INT-CL:  C12N9/10; C12N15/62
ABSTRACT:
 PURPOSE: To mass produce bacterial **transglutaminase** by using a bacterium such as Escherichia coli.
 CONSTITUTION: Escherichia coli retaining a plasmid manifesting a fused protein containing bacterial **transglutaminase** and a hydrophilic peptide existing at the amino end side of the bacterial **transglutaminase** is cultured to produce a bacterial **transglutaminase**-fused protein as an inert sealed material in cells. The sealed material is recovered from the cells, the sealed material is solubilized by using a denaturing agent and the denaturing agent is removed to give a fused protein having **transglutaminase** activity.  COPYRIGHT: (C)1994,JPO&Japio

JP405199883A        Aug. 10, 1993        L5: 2 of 4        RECOMBINANT **TRANSGLUTAMINASE**
INVENTOR:  **TAKAGI, HIROSHI**  ARAFUKA, SHINO  MATSUI, YUTAKA  WASHIZU, KINYA  ANDO, KEIICHI
KOIKEDA, SATOSHI
APPLICANT:  AMANO PHARMACEUT CO LTD        AJINOMOTO CO INC
APPL NO:  JP 03267860  DATE FILED:  Oct. 16, 1991
INT-CL:  C12N15/54; C12N1/19; C12N1/21; C12N9/10; C12N15/70 ADDITIONAL-INT-CL: C07K13/00
 ABSTRACT:
 PURPOSE: To provide a new DNA useful for producing **transglutaminase**.
 CONSTITUTION: A DNA containing a base sequence coding the amino acid sequence of the formula. The DNA is obtained by using as a probe a DNA fragment obtained by PCR method and cloning from the genome DNA of an Actinomyces bacterium, etc.  COPYRIGHT: (C)1993,JPO&Japio

(FILE 'HOME' ENTERED AT 12:54:02 ON 21 DEC 1998)
FILE 'REGISTRY' ENTERED AT 12:54:44 ON 21 DEC 1998
L1      4 S SDDRVT/SQSP
FILE 'CAPLUS' ENTERED AT 12:55:16 ON 21 DEC 1998
L2      5 S L1
FILE 'REGISTRY' ENTERED AT 12:57:15 ON 21 DEC 1998
L3     66 S TRANSGLUTAMINASE
FILE 'CAPLUS' ENTERED AT 12:57:29 ON 21 DEC 1998
L4   1938 S L3
L5   356695 S CLON? OR GENE!
L6    208 S L4 AND L5
L7    217 S CODON! (5N) (SUBSTITUT? OR OPTIMIZ?)
L8      1 S L4 AND L7

L2  ANSWER 1 OF 5  CAPLUS  COPYRIGHT 1998 ACS AN  1994:528753  CAPLUS DN  121:128753
TI  Preparation of bacterial transglutaminase with Escherichia coli
IN  Kawai, Misako; Takehana, Shino; Takagi, Hiroshi
PA  Ajinomoto Kk, Japan
SO  Jpn. Kokai Tokkyo Koho, 13 pp.  CODEN: JKXXAF DT  Patent
LA  Japanese FAN.CNT 1 PATENT NO.  KIND  DATE  APPLICATION NO.  DATE ---------- --- ------  ----------
-- -------
PI  JP 06030771  A2  19940208  JP 92-187038  19920714
AB  A method for the prodn. of bacterial transglutaminase in a microbial host such as Escherichia coli is described. Transglutaminase of Streptoverticillium was modified by substitution with hydrophilic amino acid residues to improve its soly. and expressed in Escherichia coli as a fusion protein with, e.g., T7 gene 10 peptide. The fusion protein produced in the inclusion bodies was solubilized with a denaturant and cleaved with Factor Xa. The yield of transglutaminase by the method was approx. 20 mg/L.

L2  ANSWER 2 OF 5  CAPLUS  COPYRIGHT 1998 ACS AN  1994:209639  CAPLUS DN  120:209639
TI  Chemical synthesis of the gene for microbial transglutaminase from Streptoverticillium and its expression in Escherichia coli
AU  Takehana, Shino; Washizu, Kinya; Ando, Keiichi; Koikeda, Satoshi; Takeuchi, Kazuyuki; Matsui, Hiroshi; Motoki, Masao; Takagi, Hiroshi
CS  Food Res. Dev. Lab., Ajinomoto Co., Inc., Kawasaki, 210, Japan
SO  Biosci., Biotechnol., Biochem. (1994), 58(1), 88-92 CODEN: BBBIEJ; ISSN: 0916-8451
DT  Journal LA  English
AB  The gene coding for microbial transglutaminase (TGase) from Streptoverticillium, which consists of 331 amino acids, was chem. synthesized. The codons have been substituted for those mainly favored in yeast. The authors' strategy involved the construction of the TGase gene in five sections (54 oligomers) that contained unique restriction enzyme sites at both ends, which could readily be ligated to form the full-length product. The chem. synthesized gene was inserted downstream from the ompA signal peptide of the E. coli expression vector, pIN-III-ompA, which carries lpp and lac promoters. The resultant plasmid directed the expression of TGase, with the activity being secreted mainly into the periplasmic space of E. coli. The induced gene product was identical with native TGase in size and in immunol. properties, though the enzyme activity was low.

L2  ANSWER 3 OF 5  CAPLUS  COPYRIGHT 1998 ACS AN  1994:209638  CAPLUS  DN  120:209638
TI  Molecular cloning of the gene for microbial transglutaminase from Streptoverticillium and its expression in Streptomyces lividans
AU  Washizu, Kinya; Ando, Keiichi; Koikeda, Satoshi; Hirose, Susumu; Matsuura, Akira; Takagi, Hiroshi; Motoki, Masao; Takeuchi, Kazuyuki
CS  Tsukuba Res. Lab., Amano Pharm. Co., Ltd., Tsukuba, 305, Japan
SO  Biosci., Biotechnol., Biochem. (1994), 58(1), 82-7 CODEN: BBBIEJ; ISSN: 0916-8451
DT  Journal LA  English
AB  The microbial transglutaminase (TGase)-producing strain S-8112 was identified as a variant of Streptoverticillium mobaraense. The authors amplified a partial gene fragment by polymerase chain reaction (PCR) using oligonucleotides synthesized from the amino acid sequence of TGase, and cloned the gene for TGase using the PCR amplified fragment as a probe. The gene encoded a precursor of TGase consisting of 406 amino acid residues, which comprised the prepro region of 75 amino acid residues and the mature region of 331 amino acid residues. The authors expressed the TGase gene in Streptomyces lividans under a tyrosinase promoter, and found an active and mature recombinant enzyme, indicating the processing of the gene product.

L2  ANSWER 4 OF 5  CAPLUS  COPYRIGHT 1998 ACS AN  1993:554777  CAPLUS DN  119:154777
TI  Primary structure of microbial transglutaminase from Streptoverticillium sp. strain s-8112
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AU Kanaji, Toshiya; Ozaki, Hiroshi; Takao, Toshifumi; Kawajiri, Hideo; Ide, Hiroyuki; Motoki, Masao; Shimonishi, Yasutsugu
CS Inst. Protein Res., Osaka Univ., Suita, 565, Japan
SO J. Biol. Chem. (1993), 268(16), 11565-72 CODEN: JBCHA3; ISSN: 0021-9258
DT Journal LA English
AB The complete amino acid sequence of transglutaminase (EC 2.3.2.13) (TGase), which is produced by a microorganism, Streptoverticillium sp. strain s-8112, and catalyzes the acyl transfer reaction between .gamma.-carboxyamide groups of glutamine residues in proteins and various primary amines, has been established by a combination of fast atom bombardment mass spectrometry and std. Edman degrdn. of peptide fragments produced by treatment of the TGase with various proteolytic enzymes and purified by a reversed-phase high performance liq. chromatog. The TGase consists of 331 amino acid residues with a chem. mol. wt. of 37,863, in agreement with the obsd. mol. wt. (37,869.2 .+-. 8.8) detd. from its electrospray ionization mass spectrum. The sequence of the enzyme is very different from those of mammalian TGases represented by guinea pig liver enzyme. The enzyme contains a sole Cys residue, which is essential for its catalytic activity. Hydropathy anal. indicated that the secondary structure of the region around the active site Cys residue is similar to those of mammalian TGases. These results suggest that this microbial protein evolved by a different pathway from that of mammalian TGases and acquired acyl transfer activity during the evolutional process.

L2 ANSWER 5 OF 5 CAPLUS COPYRIGHT 1998 ACS AN 1992:629103 CAPLUS DN 117:229103

TI Cloning and expression of natural and synthetic genes for a transglutaminase
IN Takagi, Hiroshi; Arafuka, Shino; Matsui, Hiroshi; Washizu, Kinya; Ando, Keiichi; Koikeda, Satoshi
PA Amano Pharmaceutical Co., Ltd., Japan; Ajinomoto Co., Inc.
SO Eur. Pat. Appl., 55 pp. CODEN: EPXXDW
DT Patent LA English
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI EP 481504 A1 19920422 EP 91-117813 19911018 EP 481504 B1 19960117 R: DE, FR, GB JP 05199883 A2 19930810 JP 91-267860 19911016 US 5420025 A 19950530 US 93-136993 19931018
PRAI JP 90-282566 19901019 US 91-777447 19911018
AB Genes for a transglutaminase useful in food processing and modification of proteins are cloned and expressed. The gene for a transglutaminase of a Streptoverticillium was cloned from a BamHI partial digest bank in .lambda.EMBL3 using a probe prepd. by polymerase chain reaction amplification of part of the gene using amino acid sequence-derived oligonucleotide primers. Synthetic genes with codon usage optimized for different hosts were prepd. One such gene was expressed in Escherichia coli using the ompA-based expression cassette of pIN-III-ompA2. The gene was expressed upon induction with IPTG with most of the transglutaminase activity found in the periplasm. Expression of the gene in yeast and other Actinomycetes is also demonstrated.

L6 ANSWER 1 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI GTP-dependent conformational changes associated with the functional switch between G.alpha. and crosslinking activities in brain-derived tissue transglutaminase

L6 ANSWER 2 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Preparation and use of respiratory-deficient cells as expression hosts for the manufacture of foreign proteins

L6 ANSWER 3 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The human prostate-specific transglutaminase gene (TGM4): genomic organization, tissue-specific expression, and promoter characterization

L6 ANSWER 4 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Genotype/phenotype correlation in autosomal recessive lamellar ichthyosis

L6 ANSWER 5 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Plasma transglutaminase in hypertrophic chondrocytes: expression and cell-specific intracellular activation produce cell death and externalization

L6 ANSWER 6 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Induction of differentiation in normal human keratinocytes by adenovirus-mediated introduction of the .eta. and .delta. isoforms of protein kinase C

L6 ANSWER 7 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI A novel insertion mutation (1286insC) in exon 9 of the factor XIII-A subunit gene

L6 ANSWER 8 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Isolation, properties and applications of a thermostable endo-.beta.-1,4-glucanase

L6 ANSWER 9 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Coexpression of p53 and tissue transglutaminase ***genes*** in human normal and pathologic adrenal tissues

L6 ANSWER 10 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and expression of heat-stable bacterial endoglucanase gene and use of enzyme in industrial processes

L6 ANSWER 11 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** of the transglutaminase gene from Bacillus subtilis and its expression in Escherichia coli

L6 ANSWER 12 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Purification, characterization, and gene ***cloning*** of transglutaminase from Streptoverticillium cinnamoneum CBS 683.68

L6 ANSWER 13 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Proteins comprising substrates capable of enzymic crosslinking

L6 ANSWER 14 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI CAG repeat diseases and neuronal cell death

L6 ANSWER 15 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Parasitic nematode transglutaminase proteins and nucleic acid molecules, and their uses for inhibitor screening and recombinant vaccines

L6 ANSWER 16 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transglutaminase 1 mutations in lamellar ichthyosis. Loss of activity due to failure of activation by proteolytic processing

L6 ANSWER 17 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI New splicing mutations in the human factor XIIIA gene, each producing multiple mutant transcripts of varying abundance

L6 ANSWER 18 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Up-regulation of p27Kip1, p21WAF1/Cip1 and p16Ink4a is associated with, but not sufficient for, induction of squamous differentiation

L6 ANSWER 19 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Identification of a transforming growth factor-.beta.1/bone morphogenetic protein 4 (TGF-.beta.1/BMP4) response element within the mouse tissue transglutaminase gene promoter

L6 ANSWER 20 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Activation of papillomavirus late gene transcription and genome amplification upon differentiation in semisolid medium is coincident with expression of involucrin and transglutaminase but not keratin-10

L6 ANSWER 21 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Differences in transglutaminase mRNA after polyamine depletion in two cell lines

L6 ANSWER 22 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Anti-fibrotic agent assay using TGF.beta.1 production by LPS-stimulated macrophages

L6 ANSWER 23 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Keratinocyte differentiation is stimulated by activators of the nuclear hormone receptor PPAR.alpha.

L6 ANSWER 24 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI TNF-.alpha. modulates expression of the tissue transglutaminase gene in liver cells

L6 ANSWER 25 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Epidermal differentiation and squamous metaplasia: from stem cell to cell death

L6 ANSWER 26 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Tissue transglutaminase cDNA of human erythroleukemia cells

L6 ANSWER 27 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Down-regulated proteins of mesenchymal tumor cells

L6 ANSWER 28 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and gene sequence of novel endoglucanases from Cellvibrio mixtus and C. gilvus

L6 ANSWER 29 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression of retinoic acid, triiodothyronine, and glucocorticoid hormone nuclear receptors is decreased in the liver of rats fed a hypercholesterolemia-inducing diet

L6 ANSWER 30 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Genetic and immunohistochemical detection of mutations inactivating the keratinocyte transglutaminase in patients with lamellar ichthyosis

L6 ANSWER 31 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Method for producing baked goods with improved freshness by using amylase

L6 ANSWER 32 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Isolation of a cDNA encoding a novel member of the transglutaminase gene family from human keratinocytes. Detection and identification of transglutaminase gene products based on reverse transcription-polymerase chain reaction with degenerate primers

L6 ANSWER 33 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Prenatal exclusion of lamellar ichthyosis based on identification of two new mutations in the transglutaminase 1 gene

L6 ANSWER 34 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Defective stratum corneum and early neonatal death in mice lacking the gene for transglutaminase 1 (keratinocyte transglutaminase)

L6 ANSWER 35 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Polyoma middle T antigen in HL-60 cells accelerates hematopoietic myeloid and monocytic cell differentiation

L6 ANSWER 36 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI An ERp60-like protein from the filarial parasite Dirofilaria immitis has both transglutaminase and protein disulfide isomerase activity

L6 ANSWER 37 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Lessons to learn from the cell death and heat shock ***genes*** of Caenorhabditis elegans

L6 ANSWER 38 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Effect of AP1 transcription factors on the regulation of transcription in normal human epidermal keratinocytes

L6 ANSWER 39 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Activation of the human transglutaminase 1 promoter in transgenic mice: terminal differentiation-specific expression of the TGM1-lacZ transgene in keratinized stratified squamous epithelia

L6 ANSWER 40 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The promoter of the mouse tissue transglutaminase gene directs tissue-specific, retinoid-regulated and apoptosis-linked expression

L6 ANSWER 41 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transglutaminase-catalyzed inactivation of glyceraldehyde 3-phosphate dehydrogenase and .alpha.-ketoglutarate dehydrogenase complex by polyglutamine domains of pathological length

L6 ANSWER 42 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The complete genome sequence of the gram-positive bacterium Bacillus subtilis

L6 ANSWER 43 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Three novel point mutations in the keratinocyte transglutaminase (TGK) gene in lamellar ichthyosis: significance for mutant transcript level, TGK immunodetection and activity

L6 ANSWER 44 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Reduced expression of tissue transglutaminase in a human endothelial cell line leads to changes in cell spreading, cell adhesion and reduced polymerization of fibronectin

L6 ANSWER 45 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Aging decreases retinoic acid and triiodothyronine nuclear expression in rat liver: exogenous retinol and retinoic acid differentially modulate this decreased expression

L6 ANSWER 46 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Isolation and characterization of a potential gene coding for transglutaminase in Medicago sativa l. (alfalfa)

L6 ANSWER 47 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transglutaminase 1 mutations in autosomal recessive congenital ichthyosis: private and recurrent mutations in an isolated population

L6 ANSWER 48 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Biologically Active Heteroarotinoids Exhibiting Anticancer Activity and Decreased Toxicity

L6 ANSWER 49 OF 208 CAPLUS COPYRIGHT 1998 ACS

TI Tissue transglutaminase-dependent posttranslational modification of the retinoblastoma gene product in promonocytic cells undergoing apoptosis

L6 ANSWER 50 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Organization and structure of the human tissue transglutaminase gene

L6 ANSWER 51 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Analysis of the Bacillus subtilis genome: ***cloning*** and nucleotide sequence of a 62 kb region between 275.degree. (rrnB) and 284.degree. (pai)

L6 ANSWER 52 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Opposite effects of the acute promyelocytic leukemia PML-retinoic acid receptor .alpha. (RAR.alpha.) and PLZF-RAR.alpha. fusion proteins on retinoic acid signaling

L6 ANSWER 53 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Age-related decreases in mRNA for brain nuclear receptors and target ***genes*** are reversed by retinoic acid treatment

L6 ANSWER 54 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Antiproliferative effect of curcumin (diferuloylmethane) against human breast tumor cell lines

L6 ANSWER 55 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Polyglutamine domains are substrates of tissue transglutaminase: does transglutaminase play a role in expanded CAG/Poly-Q neurodegenerative diseases?

L6 ANSWER 56 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI High-level expression of the chemically synthesized gene for microbial transglutaminase from Streptoverticillium in Escherichia coli

L6 ANSWER 57 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI A new transglutaminase-like from the ascidian Ciona intestinalis

L6 ANSWER 58 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI tTGase/G.alpha.h protein expression inhibits adenylate cyclase activity in Balb-C 3T3 fibroblasts membranes

L6 ANSWER 59 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Regulation of the expression of the tissue transglutaminase gene by DNA methylation

L6 ANSWER 60 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Analysis and comparison of partial sequences of ***clones*** from a taste-bud enriched cDNA library

L6 ANSWER 61 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Growth suppression of squamous cell carcinoma cell lines by PKCs. Possible application to gene therapy

L6 ANSWER 62 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Phage display and catcher molecules (e.g., suicide inhibitors or transition state analogs) for screening detergent enzyme variants

L6 ANSWER 63 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression of GTP-dependent and GTP-independent tissue-type transglutaminase in cytokine-treated rat brain astrocytes. [Erratum to document cited in CA126:223254]

L6 ANSWER 64 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI A role for tissue transglutaminase in hepatic injury and fibrogenesis, and its regulation by NF-.kappa.B

L6 ANSWER 65 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Tissue transglutaminase in mesenchymal tumor cells

L6 ANSWER 66 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression of GTP-dependent and GTP-independent tissue-type transglutaminase in cytokine-treated rat brain astrocytes

L6 ANSWER 67 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI .alpha.1-Adrenergic receptor signaling via Gh is subtype specific and independent of its transglutaminase activity

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TI Transcription factor regulation of epidermal keratinocyte gene expression

L6 ANSWER 69 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Efficient production of soluble transglutaminase through co-transformation of Escherichia coli with heat shock protein DnaJ

L6 ANSWER 70 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Negative regulation of two hyperproliferative keratinocyte differentiation markers by a retinoic acid receptor-specific retinoid: insight into the mechanism of retinoid action in psoriasis

L6 ANSWER 71 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and sequence analysis of a cDNA encoding salmon (Oncorhynchus keta) liver transglutaminase

L6 ANSWER 72 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Mol. screening and PCR ***cloning*** of novel endoglucanases from fungi for use as detergents, textile treatment, and paper pulp processing

L6 ANSWER 73 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transglutaminase induction by various cell death and apoptosis pathways

L6 ANSWER 74 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Bacillus-derived transglutaminase gene sequence, recombinant enzyme production, and use in food industry for crosslinked protein production

L6 ANSWER 75 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Composition for introducing nucleic acid complexes into higher eukaryotic cells

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TI Transglutaminases from Oomycetes, their production with recombinant cells, and their use in foods and cosmetics

L6 ANSWER 77 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression of human transglutaminase C (TGase II) in yeast Saccharomyces cerevisiae: an effect of a domain from carboxyl terminal deletion of the enzyme

L6 ANSWER 78 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Analysis of up-regulated ***genes*** during chondrocyte hypertrophy

L6 ANSWER 79 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Identification and characterization of up-regulated ***genes*** during chondrocyte hypertrophy

L6 ANSWER 80 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Regulation of gene expression during squamous differentiation by multiple retinoic acid signaling pathways

L6 ANSWER 81 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Discovery of a new type of proteinase inhibitor family whose members have an anchoring sequence

L6 ANSWER 82 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Tripeptidyl aminopeptidases from Aspergillus niger and A. oryzae

L6 ANSWER 83 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Retinoic acid induction of the tissue transglutaminase promoter is mediated by a novel response element

L6 ANSWER 84 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI An enzyme and enzyme preparation with endoglucanase activity from Acremonium species

L6 ANSWER 85 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Human prostate or placental transglutaminase cDNA sequences, recombinant enzyme production, and uses of transglutaminases

L6 ANSWER 86 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Microbial transglutaminases, their production, gene ***cloning*** and sequence, and use for protein crosslinking

L6 ANSWER 87 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Tissue-specific and androgen-regulated expression of human prostate-specific transglutaminase

L6 ANSWER 88 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Squamous carcinoma cell lines fail to respond to 1,25-dihydroxyvitamin D despite normal levels of the vitamin D receptor

L6 ANSWER 89 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Retinoid-induced differentiation of acute promyelocytic leukemia involves PML-RAR.alpha.-mediated increase of type II transglutaminase

L6 ANSWER 90 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The proximal promoter of the human transglutaminase 3 gene. Stratified squamous epithelial-specific expression in cultured cells is mediated by binding of Sp1 and ets transcription factors to a proximal promoter element

L6 ANSWER 91 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and regulation of cornifin .beta., a new member of the cornifin/spr family. Suppression by retinoic acid receptor-selective retinoids

L6 ANSWER 92 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Subtyping of coagulation factor XIIIA

L6 ANSWER 93 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Biochemical, structural, and transglutaminase substrate properties of human loricrin, the major epidermal cornified cell envelope protein

L6 ANSWER 94 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transglutaminase originating in Japanese oyster

L6 ANSWER 95 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Involvement of retinoic acid nuclear receptors in transcriptional regulation of tissue transglutaminase, the gene involved in apoptosis

L6 ANSWER 96 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Tissue-type transglutaminase from red sea bream (Pagrus major). Sequence analysis of the cDNA and functional expression in Escherichia coli

L6 ANSWER 97 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** , characterization, and tissue distribution of porcine SPAI, a protein with a transglutaminase substrate domain and the WAP motif

L6 ANSWER 98 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The importance of the GTP-binding protein tissue transglutaminase in the regulation of cell cycle progression

L6 ANSWER 99 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Autosomal recessive lamellar ichthyosis: identification of a new mutation in transglutaminase 1 and evidence for genetic heterogeneity

L6 ANSWER 100 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Localization of the human prostate transglutaminase (Type IV) gene (TGM4) to chromosome 3p21.33-p22 by fluorescence in situ hybridization

L6 ANSWER 101 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Use of heparanase to identify and isolate anti-heparanase compound

L6 ANSWER 102 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** and expression of cDNA for fish transglutaminase

L6 ANSWER 103 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Isolation and characterization of the human tissue transglutaminase gene promoter

L6 ANSWER 104 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Genes*** up-regulated in hypertrophied ventricle

L6 ANSWER 105 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Proliferation-dependent vs. independent programmed cell death of prostatic cancer cells involves distinct gene regulation

L6 ANSWER 106 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Fermentative production of active enzyme with proenzyme-producing cells in proenzyme-cleaving protease-containing medium

L6 ANSWER 107 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Alterations in murine keratinocyte differentiation induced by activated rasHa ***genes*** are mediated by protein kinase C-.alpha.

L6 ANSWER 108 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Restoration of differentiation and suppression of tumorigenicity in somatic cell hybrids of human squamous carcinoma cells and keratinocytes

L6 ANSWER 109 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Assignment of the human transglutaminase 2 (TGM2) and transglutaminase 3 (TGM3) ***genes*** to chromosome 20q11.2

L6 ANSWER 110 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Structure and organization of the human transglutaminase 3 gene: evolutionary relationship to the transglutaminase family

L6 ANSWER 111 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** of mouse erythrocyte protein 4.2: a membrane protein with strong homology with the transglutaminase supergene family

L6 ANSWER 112 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The structure of microbial transglutaminase from Streptoverticillium and its gene expression in Escherichia coli

L6 ANSWER 113 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The human tissue transglutaminase gene maps on chromosome 20q12 by in situ fluorescence hybridization

L6 ANSWER 114 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** and characterization of a novel transglutaminase cDNA from a human prostate cDNA library

L6 ANSWER 115 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The structure of the transglutaminase 1 enzyme. Deletion ***cloning*** reveals domains that regulate its specific activity and substrate specificity

L6 ANSWER 116 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Cosmetic compositions containing corneocyte proteins

L6 ANSWER 117 OF 208 CAPLUS COPYRIGHT 1998 ACS

TI Transfection of tissue transglutaminase into a highly malignant hamster fibrosarcoma leads to a reduced incidence of primary tumor growth

L6 ANSWER 118 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Thanatogen expression during involution of the rat ventral prostate after castration

L6 ANSWER 119 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Differential responsiveness of human bronchial epithelial cells, lung carcinoma cells, and bronchial fibroblasts to interferon-.gamma. in vitro

L6 ANSWER 120 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Preparation of bacterial transglutaminase with Escherichia coli

L6 ANSWER 121 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transglutaminases: protein crosslinking enzymes in tissues and body fluids

L6 ANSWER 122 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI 1,25-Dihydroxyvitamin D3 potentiates the keratinocyte response to calcium

L6 ANSWER 123 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Wild-type p53 tumor suppressor gene restores differentiation of human squamous carcinoma cells but not the response to transforming growth factor .beta.

L6 ANSWER 124 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and characterization of the full length cDNA and promoter of mouse tissue transglutaminase

L6 ANSWER 125 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of DNA encoding mammalian trichohyalin and transglutaminase-3 and use of these proteins for formation of gels for use in food, cosmetics, and medicine

L6 ANSWER 126 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Chemical synthesis of the gene for microbial transglutaminase from Streptoverticillium and its expression in Escherichia coli

L6 ANSWER 127 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** of the gene for microbial transglutaminase from Streptoverticillium and its expression in Streptomyces lividans

L6 ANSWER 128 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI HIV-1 gp120-dependent induction of apoptosis in antigen-specific human T cell ***clones*** is characterized by 'tissue' transglutaminase expression and prevented by cyclosporin A

L6 ANSWER 129 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Induction of gene expression during involution of the lactating mammary gland of the rat

L6 ANSWER 130 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Control of growth regulatory and differentiation-specific ***genes*** in human epidermal keratinocytes by interferon .gamma.. Antagonism by retinoic acid and transforming growth factor .beta.1

L6 ANSWER 131 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Regulation of proliferation-specific and differentiation-specific ***genes*** during senescence of human epidermal keratinocyte and mammary epithelial cells

L6 ANSWER 132 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Differential gene regulation during programmed death (apoptosis) versus proliferation of prostatic glandular cells induced by androgen manipulation

L6 ANSWER 133 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transformation of NIH3T3 cells with ras oncogenes abrogates the retinoic acid induction of tissue transglutaminase

L6 ANSWER 134 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Site-directed mutagenesis of human tissue transglutaminase: Cys-277 is essential for transglutaminase activity but not for GTPase activity

L6 ANSWER 135 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of the cDNA encoding transglutaminase of fish

L6 ANSWER 136 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of human prostatic transglutaminases

L6 ANSWER 137 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The deduced sequence of the novel protransglutaminase E (TGase3) of human and mouse

L6 ANSWER 138 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Human epidermal type I transglutaminase gene promoter and its use in tissue-specific expression of ***genes***

L6 ANSWER 139 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI SKALP/elafin: An elastase inhibitor from cultured human keratinocytes. Purification cDNA sequence, and evidence for transglutaminase cross-linking

L6 ANSWER 140 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Cornifin, a cross-linked envelope precursor in keratinocytes that is down-regulated by retinoids

L6 ANSWER 141 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Differences in the post-translational modification of proteins by polyamines between weakly and highly metastatic B16 melanoma cells

L6 ANSWER 142 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and expression of chicken erythrocyte transglutaminase

L6 ANSWER 143 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Identification of Gln726 in nidogen as the amine acceptor in transglutaminase-catalyzed cross-linking of laminin-nidogen complexes

L6 ANSWER 144 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Limulus hemocyte transglutaminase. cDNA ***cloning*** , amino acid sequence, and tissue localization

L6 ANSWER 145 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Identification of promoter region of guinea pig liver transglutaminase gene

L6 ANSWER 146 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of bovine transglutaminase cDNA

L6 ANSWER 147 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI A retinoic acid-inducible mRNA from human erythroleukemia cells encodes a novel tissue transglutaminase homolog

L6 ANSWER 148 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of human epidermal transglutaminase for recombinant manufacture of the enzyme

L6 ANSWER 149 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Multiple cell cycle access to the apoptotic death program in human neuroblastoma cells

L6 ANSWER 150 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Structure of the gene for human epidermal transglutaminase

L6 ANSWER 151 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The cornified cell envelope: Loricrin and transglutaminases

L6 ANSWER 152 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** of rat prostate transglutaminase complementary DNA. The major androgen-regulated protein DP1 of rat dorsal prostate and coagulating gland

L6 ANSWER 153 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Retinoids and state of differentiation modulate CRABP II gene expression in a skin equivalent

L6 ANSWER 154 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Genomic structure of keratinocyte transglutaminase. Recruitment of new exon for modified function

L6 ANSWER 155 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and sequence analysis of cDNA ***clones*** for bovine aortic endothelial cell transglutaminase

L6 ANSWER 156 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Phenotype-specific "tissue" transglutaminase regulation in human neuroblastoma cells in response to retinoic acid: correlation with cell death by apoptosis

L6 ANSWER 157 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and expression of ***genes*** for human and mouse tissue transglutaminase

L6 ANSWER 158 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and expression of natural and synthetic ***genes*** for a transglutaminase

L6 ANSWER 159 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Coupling of adenovirus to transferrin-polylysine/DNA complexes greatly enhances receptor-mediated gene delivery and expression of transfected ***genes***

L6 ANSWER 160 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Type I keratinocyte transglutaminase: expression in human skin and psoriasis

L6 ANSWER 161 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Polypeptides containing the fibrin-binding domain of fibronectin, their recombinant production, and their use in imaging and therapy

L6 ANSWER 162 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Structure and organization of the human transglutaminase 1 gene

L6 ANSWER 163 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Organization of the gene for human erythrocyte membrane protein 4.2: structural similarities with the gene for the a subunit of factor XIII

L6 ANSWER 164 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression of keratinocyte transglutaminase mRNA revealed by in situ hybridization

L6 ANSWER 165 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Recombinant coagulation factor XIII/XIIIa, mutant analogs thereof, and use in imaging of blood clots

L6 ANSWER 166 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Induction of peroxisomal .beta.-oxidation ***genes*** by retinoic acid in cultured rat hepatocytes

L6 ANSWER 167 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Blood-coagulation factor XIII manufacture with recombinant yeast

L6 ANSWER 168 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression of the transglutaminase gene in Escherichia coli

L6 ANSWER 169 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** of human epidermal transglutaminase cDNA from keratinocytes in culture

L6 ANSWER 170 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Process for the expression of foreign ***genes*** in yeasts

L6 ANSWER 171 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The expression of "tissue" transglutaminase in two human cancer cell lines is related with the programmed cell death (apoptosis)

L6 ANSWER 172 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Epidermal type I transglutaminase (TGM1) is assigned to human chromosome 14

L6 ANSWER 173 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Primary structure of keratinocyte transglutaminase

L6 ANSWER 174 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Isolation and characterization of cDNA ***clones*** to mouse macrophage and human endothelial cell tissue transglutaminases

L6 ANSWER 175 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The complete amino acid sequence of the human transglutaminase K enzyme deduced from the nucleic acid sequences of cDNA ***clones***

L6 ANSWER 176 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Isolation of cDNA for human epidermal type I transglutaminase

L6 ANSWER 177 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of gene for human fibronectin analogs, its recombinant manufacture, and pharmaceuticals contg. same

L6 ANSWER 178 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression vectors for synthesis of heterologus proteins in Schizosaccharomyces pombe

L6 ANSWER 179 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Differentiation capacity of human non-small-cell lung cancer cell lines after exposure to phorbol ester

L6 ANSWER 180 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of mammalian type I transglutaminase cDNA

L6 ANSWER 181 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular nature of in vivo mutations in human cells at the autosomal HLA-A locus

L6 ANSWER 182 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Complete amino acid sequence and homologies of human erythrocyte membrane protein band 4.2

L6 ANSWER 183 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Expression of functional coagulation factor XIII in Escherichia coli

L6 ANSWER 184 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Molecular ***cloning*** of human protein 4.2: a major component of the erythrocyte membrane

L6 ANSWER 185 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Recombinant manufacture of transglutaminase of Caviidae liver (MTGase) with Escherichia

L6 ANSWER 186 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Histological and biochemical characterization of the murine cataract mutant Nop

L6 ANSWER 187 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Deletion and linkage mapping of eight markers from the proximal short arm of chromosome 6

L6 ANSWER 188 OF 208 CAPLUS COPYRIGHT 1998 ACS

TI Production of recombinant eukaryotic cells efficiently expressing recombinant ***genes***

L6 ANSWER 189 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Differential reaction of secretory and non-secretory proteins in hormone-treated Dunning tumor

L6 ANSWER 190 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Regulation of type I (epidermal) transglutaminase mRNA levels during squamous differentiation: down regulation by retinoids

L6 ANSWER 191 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Fibrin-binding peptides and method for detection of fibrin deposits

L6 ANSWER 192 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI New expression vectors for the fission yeast Schizosaccharomyces pombe

L6 ANSWER 193 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Use of transglutaminase

L6 ANSWER 194 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Improved "ATG vector" series for bacterial synthesis of proteins and protein fragments

L6 ANSWER 195 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI The molecular basis of retinoic acid action. Transcriptional regulation of tissue transglutaminase gene expression in macrophages

L6 ANSWER 196 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Functional and morphological differentiation induction of a human megakaryoblastic leukemia cell line (MEG-01s) by phorbol diesters

L6 ANSWER 197 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Amino acid sequence of guinea pig liver transglutaminase from its cDNA sequence

L6 ANSWER 198 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** and sequencing of human placental factor XIIIa cDNA

L6 ANSWER 199 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI ***Cloning*** of cDNA coding for guinea pig liver transglutaminase

L6 ANSWER 200 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Characterization of cDNA coding for human factor XIIIa

L6 ANSWER 201 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Regulation of proliferation and differentiation of respiratory tract epithelial cells by TGF.beta.

L6 ANSWER 202 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Amino acid sequence of the a subunit of human factor XIII

L6 ANSWER 203 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Transglutaminase activity and putrescine-binding capacity in ***cloned*** cell lines with different metastatic potential

L6 ANSWER 204 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Variable transglutaminase activity in human diploid fibroblasts during in vitro senescence

L6 ANSWER 205 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Production of monoclonal antibodies to guinea pig liver transglutaminase

L6 ANSWER 206 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Monoclonal antibody to the region of fibronectin involved in crosslinking to human fibrin

L6 ANSWER 207 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Primary amines inhibit the triggering of B lymphocytes to antibody synthesis

L6 ANSWER 208 OF 208 CAPLUS COPYRIGHT 1998 ACS
TI Lysosomotropic agents modulate serum stimulation of dome formation in MDCK epithelial cell cultures

L6 ANSWER 126 OF 208 CAPLUS COPYRIGHT 1998 ACS AN 1994:209639 CAPLUS DN 120:209639
TI Chemical synthesis of the gene for microbial transglutaminase from Streptoverticillium and its expression in Escherichia coli
AU Takehana, Shino; Washizu, Kinya; Ando, Keiichi; Koikeda, Satoshi; Takeuchi, Kazuyuki; Matsui, Hiroshi; Motoki, Masao; Takagi, Hiroshi
CS Food Res. Dev. Lab., Ajinomoto Co., Inc., Kawasaki, 210, Japan
SO Biosci., Biotechnol., Biochem. (1994), 58(1), 88-92 CODEN: BBBIEJ; ISSN: 0916-8451
DT Journal LA English
AB The gene coding for microbial transglutaminase (TGase) from Streptoverticillium, which consists of 331 amino acids, was chem. synthesized. The codons have been substituted for those mainly favored in yeast. The authors' strategy involved the construction of the TGase gene in five sections (54 oligomers) that contained unique restriction enzyme sites at both ends, which could readily be ligated to form the full-length product. The chem. synthesized gene was inserted downstream from the ompA signal peptide of the E. coli expression vector, pIN-III-ompA, which carries lpp and lac promoters. The resultant plasmid directed the expression of TGase, with the activity being secreted mainly into the periplasmic space of E. coli. The induced gene product was identical with native TGase in size and in immunol. properties, though the enzyme activity was low.

L6 ANSWER 127 OF 208 CAPLUS COPYRIGHT 1998 ACS AN 1994:209638 CAPLUS DN 120:209638
TI Molecular ***cloning*** of the gene for microbial transglutaminase from Streptoverticillium and its expression in Streptomyces lividans
AU Washizu, Kinya; Ando, Keiichi; Koikeda, Satoshi; Hirose, Susumu; Matsuura, Akira; Takagi, Hiroshi; Motoki, Masao; Takeuchi, Kazuyuki
CS Tsukuba Res. Lab., Amano Pharm. Co., Ltd., Tsukuba, 305, Japan
SO Biosci., Biotechnol., Biochem. (1994), 58(1), 82-7 CODEN: BBBIEJ; ISSN: 0916-8451
DT Journal LA English
AB The microbial transglutaminase (TGase)-producing strain S-8112 was identified as a variant of Streptoverticillium mobaraense. The authors amplified a partial gene fragment by polymerase chain reaction (PCR) using oligonucleotides synthesized from the amino acid sequence of TGase, and ***cloned*** the gene for TGase using the PCR amplified fragment as a probe. The gene encoded a precursor of TGase consisting of 406 amino acid residues, which comprised the prepro region of 75 amino acid residues and the mature region of 331 amino acid residues. The authors expressed the TGase gene in Streptomyces lividans under a tyrosinase promoter, and found an active and mature recombinant enzyme, indicating the processing of the gene product.

L6 ANSWER 185 OF 208 CAPLUS COPYRIGHT 1998 ACS AN 1990:438931 CAPLUS DN 113:38931
TI Recombinant manufacture of transglutaminase of Caviidae liver (MTGase) with Escherichia
IN Ikura, Koji; Sasaki, Ryuzo; Chiba, Hideo
PA Ajinomoto Co., Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 8 pp. CODEN: JKXXAF
DT Patent LA Japanese
FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE
PI JP 01300889 A2 19891205 JP 88-132000 19880530
AB A method for manufg. MTGase by cultivating recombinant E. coli is described. CDNA for MTGase was ***cloned*** from a guinea pig liver cDNA library and subsequently used to construct an expression plasmid pKTG1. The E. coli transformants were cultured and induced to produce MTGase detd. by Western blotting. Purifn. of the recombinant MTGase with monoclonal antibody to MTGase by affinity chromatog. was given. The purified MTGase had a sp. activity of 1690 unit/mg .times. 104.

L6 ANSWER 194 OF 208 CAPLUS COPYRIGHT 1998 ACS AN 1988:623906 CAPLUS DN 109:223906
TI Improved "ATG vector" series for bacterial synthesis of proteins and protein fragments
AU Broeker, Michael
CS Res. Lab., Behringwerke A.-G., Marburg, D-3550, Fed. Rep. Ger.
SO BioTechniques (1988), 6(8), 734 CODEN: BTNQDO; ISSN: 0736-6205
DT Journal LA English
AB The ATG vector developed by E. Amann and J. Brosius (1985) facilitates regulated high level exprression of ***genes*** in Escherichia coli. This vector was improved by insertion of a multiple ***cloning*** site from pUC12 downstream of the translational start codon, and offers in-frame ligation in all 3 potential reading frames of coding DNA. This improved series of pOB vectors was shown to direct the efficient expression of coding sequences of lacZ and the heat labile enterotoxin subunit B of E. coli and of the human blood coagulation protein XIIIa.

L8 ANSWER 1 OF 1 CAPLUS COPYRIGHT 1998 ACS AN 1994:209639 CAPLUS DN 120:209639
TI Chemical synthesis of the gene for microbial transglutaminase from Streptoverticillium and its expression in Escherichia coli
AU Takehana, Shino; Washizu, Kinya; Ando, Keiichi; Koikeda, Satoshi; Takeuchi, Kazuyuki; Matsui, Hiroshi; Motoki, Masao; Takagi, Hiroshi
CS Food Res. Dev. Lab., Ajinomoto Co., Inc., Kawasaki, 210, Japan
SO Biosci., Biotechnol., Biochem. (1994), 58(1), 88-92 CODEN: BBBIEJ; ISSN: 0916-8451
DT Journal LA English
AB The gene coding for microbial transglutaminase (TGase) from Streptoverticillium, which consists of 331 amino acids, was chem. synthesized. The ***codons*** have been ***substituted*** for those mainly favored in yeast. The authors' strategy involved the construction of the TGase gene in five sections (54 oligomers) that contained unique restriction enzyme sites at both ends, which could readily be ligated to form the full-length product. The chem. synthesized gene was inserted downstream from the ompA signal peptide of the E. coli expression vector, pIN-III-ompA, which carries lpp and lac promoters. The resultant plasmid directed the expression of TGase, with the activity being secreted mainly into the periplasmic space of E. coli. The induced gene product was identical with native TGase in size and in immunol. properties, though the enzyme activity was low.

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L1 260 S TRANSGLUTAMINASE?
L2 1146 S CODON?(10N)(OPTIMIZ? OR SUBSTIT?)
L3 8 S L1 AND L2
L4 1 S L1(P)L2
L5 97625 S DELET?

L6 5 S L5(P)L1

L3 1. 5,817,768, Oct. 6, 1998, Monospecific antibodies against a subunit of fibrinogen; Gerd Grieninger, et al., 530/388.1; 435/7.9, 13; 530/388.25, 389.3, 391.1, 391.3 [IMAGE AVAILABLE]

2. 5,792,742, Aug. 11, 1998, Fibrin-binding peptide fragments of fibronectin; Leslie I. Gold, et al., 514/2; 424/9.1; 435/69.6; 514/8; 530/350, 402 [IMAGE AVAILABLE]

3. 5,616,500, Apr. 1, 1997, Trichohyalin and **transglutaminase**-3 and methods of using same; Peter M. Steinert, et al., 435/320.1, 69.1, 193, 325, 348; 536/22.1, 23.1, 23.2, 23.5, 24.3, 24.31, 24.33 [IMAGE AVAILABLE]

4. 5,527,692, Jun. 18, 1996, Methods for producing thrombin; Richard D. Holly, et al., 424/94.64; 435/69.1, 69.6, 214, 320.1; 514/2, 12; 530/350, 380, 381, 382; 536/22.1, 23.1, 23.2, 23.5 [IMAGE AVAILABLE]

5. 5,514,579, May 7, 1996, Human **transglutaminases**; Patrick J. O'Hara, et al., 435/352, 69.2, 193, 254.3, 320.1; 536/23.2, 24.31 [IMAGE AVAILABLE]

6. 5,502,034, Mar. 26, 1996, Methods for producing thrombin; Richard D. Holly, et al., 514/12; 424/94.64; 435/69.1, 69.6, 214, 320.1; 514/2; 530/350, 380, 381, 382; 536/22.1, 23.1, 23.2, 23.5 [IMAGE AVAILABLE]

7. 5,486,599, Jan. 23, 1996, Construction and use of synthetic constructs encoding syndecan; Scott Saunders, et al., 530/395; 435/69.1, 69.7, 252.3, 320.1; 536/23.4, 23.5 [IMAGE AVAILABLE]

8. 5,476,777, Dec. 19, 1995, Methods for producing thrombin; Richard D. Holly, et al., 435/214; 424/94.64; 435/69.1, 69.6, 254.11, 254.2, 254.21, 320.1, 352; 530/350, 380, 381, 382; 536/22.1, 23.1, 23.2, 23.5 [IMAGE AVAILABLE]

L4 1. 5,514,579, May 7, 1996, Human transglutaminases; Patrick J. O'Hara, et al., 435/352, 69.2, 193, 254.3, 320.1; 536/23.2, 24.31 [IMAGE AVAILABLE]

US PAT NO: 5,514,579 [IMAGE AVAILABLE] L4: 1 of 1
BSUM(12) As . . . the art, the DNA molecules of the present invention encompass allelic variants and genetically engineered or synthetic variants of the **transglutaminases** that encode conservative amino acid substitutions and/or minor additions, or deletions of amino acids. Such variants also encompass DNA molecules containing degeneracies in the DNA code wherein host-preferred **codons** are **substituted** for the analogous **codons** in the human sequence. In addition, substantially similar DNA molecules of the present invention encompass those DNA molecules that are. . .

L6 1. 5,712,252, Jan. 27, 1998, Method of augmenting soft tissue in mammals; Dean Preston Smith, 514/21; 424/423, 424 [IMAGE AVAILABLE]

2. 5,607,849, Mar. 4, 1997, Gene encoding transglutaminase derived from fish; Hisashi Yasueda, et al., 435/193, 69.1, 183, 252.31, 252.33, 254.11, 254.21, 320.1; 536/23.2 [IMAGE AVAILABLE]

3. 5,514,579, May 7, 1996, Human transglutaminases; Patrick J. O'Hara, et al., 435/352, 69.2, 193, 254.3, 320.1; 536/23.2, 24.31 [IMAGE AVAILABLE]

4. 5,514,573, May 7, 1996, Gene encoding transglutaminase derived from fish; Hisashi Yasueda, et al., 435/193, 69.1, 183, 320.1; 536/23.2 [IMAGE AVAILABLE]

5. 5,428,014, Jun. 27, 1995, Transglutaminase cross-linkable polypeptides and methods relating thereto; Virender Labroo, et al., 514/12, 13, 14, 15, 16; 530/324, 326, 327, 328, 329, 345, 350 [IMAGE AVAILABLE]

US PAT NO: 5,712,252 [IMAGE AVAILABLE] L6: 1 of 5
DETD(11) Loricrin . . . Sci U.S.A., 89:910-14 (1992); and Korge, et al., "The Two Size Alleles of Human Keratin 1 are Due to a **Deletion** in the Glycine-Rich Carboxyl-Terminal V2 Subdomain," J. Invest. Dermatol., 99:697-702 (1992), which are hereby incorporated by reference). These sequences may. . . and promote nonspecific interaction between KIFs and CE. Loricrin incorporation into the cell envelope or cornified envelope ("CE") by epidermal **transglutaminases** has been documented in vivo, by identification of loricrin polypeptides directly cross-linked to the CE by isodipeptide bonds (FIG. 2). . .

US PAT NO: 5,607,849 [IMAGE AVAILABLE] L6: 2 of 5
DETD(18) The present DNA fragment includes mutants having substitution, **deletion** or insertion of base sequences on the basis of the difference in the individualities of fishes and of the difference. . . for example, which may be a pseudogene. However, such still contain an essentially equivalent DNA fragment capable of expressing the **transglutaminase** activity. The presence of them is described in the following examples.

DETD(54) From the above, it was clarified that the **transglutaminase** of SEQ ID NO:7 is an Alaska pollack **transglutaminase** as expressed beyond the kind of the organ; and that the **transglutaminase** of SEQ ID NO:28, though not obtained as a cDNA of a complete length, was different from the liver-derived **transglutaminase** only in the point of a several-base substitution, a base **deletion** of 12 bp and a base insertion of 3 bp in the structural gene. Thus, both genes were clarified to. . .

US PAT NO: 5,514,579 [IMAGE AVAILABLE] L6: 3 of 5
BSUM(12) As . . . the art, the DNA molecules of the present invention encompass allelic variants and genetically engineered or synthetic variants of the **transglutaminases** that encode conservative amino acid substitutions and/or minor additions, or **deletions** of amino acids. Such variants also encompass DNA molecules containing degeneracies in the DNA code wherein host-preferred codons are substituted. . .

BSUM(13) Recombinant DNA expression systems provide convenient means for obtaining large quantities of the human **transglutaminases** in relatively pure form. By human prostatic or placental **transglutaminase** polypeptides and fragments is meant to include sequences of amino acids from 9 to 20 amino acids up to entire. . .more preferably at least about 95% or more homology to the amino acid sequences of the human prostatic or placental **transglutaminases** of the invention. As will be appreciated by those skilled in the art, the invention also includes those polypeptides having. . . genetic polymorphism) or may be produced by human intervention (e.g., by mutagenesis of cloned DNA sequences), such as induced point, **deletion** and insertion mutations.

DETD(19) The prostate **transglutaminase** cDNA insert present in plasmid pDT47-15 was subcloned into the mammalian expression vector Zem229R. Plasmid Zem229 is a pUC18-based expression. . . and an expression unit containing the SV40 early promoter, mouse dihydrofolate reductase gene, and SV40 terminator. Zem229 was modified to **delete** the two Eco RI sites by partial digestion with Eco RI, blunting with DNA polymerase I (Klenow fragment) and dNTPs,. . .

US PAT NO: 5,514,573 [IMAGE AVAILABLE] L6: 4 of 5

DETD(18) The present DNA fragment includes mutants having substitution, **deletion** or insertion of base sequences on the basis of the difference in the individualities of fishes and of the difference. . . for example, which may be a pseudogene. However, such still contain an essentially equivalent DNA fragment capable of expressing the **transglutaminase** activity. The presence of them is described in the following examples.

DETD(54) From the above, it was clarified that the **transglutaminase** of SEQ ID NO:7 is an Alaska pollack **transglutaminase** as expressed beyond the kind of the organ; and that the **transglutaminase** of SEQ ID NO:28, though not obtained as a cDNA of a complete length, was different from the liver-derived **transglutaminase** only in the point of a several-base substitution, a base **deletion** of 12 bp and a base insertion of 3 bp in the structural gene. Thus, both genes were clarified to. . .

US PAT NO: 5,428,014 [IMAGE AVAILABLE] L6: 5 of 5
BSUM(21) The . . . polypeptides can also be synthesized by conventional solution phase methodology. The polypeptides are then screened for the ability to form **transglutaminase**-induced cross-links using methods described in more detail below. As will be evident to one skilled in the art, polypeptides can be prepared in which the sequence and content of the spacer and flanking sequences can be altered by **deletion**, addition or replacement to improve the cross-linking rate and/or to reduce the deamidation of the intermediate. For example, the spacer. . . amino acid 7, to Gly, amino acid 12, in the polypeptide sequence Thr-Ile-Gly-Glu-Gly-Gln-Gln-His-His-Leu-Gly-Gly-Ala-Lys-Gln-Ala-Gly-Asp- Val (SEQ ID NO:1) can be reduced by **deletion** of one or all of the amino acid residues. In a like manner, the amino-terminal sequences flanking Gln, amino acid residue 6, and the carboxy-terminal sequences flanking Lys, amino acid residue 14, can be **deleted** to shorten the polypeptide. It is preferable to place a glycine or proline residue at the carboxyl terminus of the. . .